

## CHAPTER 2.1.13. CLASSICAL SWINE FEVER

### Article 2.1.13.1.

The pig is the only natural host for classical swine fever (CSF) virus. The definition of pigs includes all varieties of *Sus scrofa*, both domestic breeds and wild boar. A distinction is made between farmed and permanently captive pigs, and free-living pigs. Farmed and permanently captive pigs of any breed will hereafter be referred to as domestic pigs. Free-living pigs of any breed will hereafter be referred to as wild pigs. Extensively kept pigs may fall into either of these categories or may alternate between the two.

Pigs exposed to CSF virus prenatally may be persistently infected throughout life and may have an *incubation period* of several months before showing signs of disease. Pigs exposed postnatally have an *incubation period* of 7-10 days, and are usually infective between post-infection days 5 and 14, but up to 3 months in cases of chronic infections.

Standards for diagnostic tests and vaccines are described in the *Manual*.

### Article 2.1.13.2.

The CSF status of a country or zone can only be determined after considering the following criteria both in domestic and wild pigs:

- 1) a risk [analysis] assessment has been conducted, identifying all potential factors for CSF occurrence and their historic perspective;
- 2) CSF should be notifiable in the whole country and all clinical signs suggestive of CSF should be subjected to field and/or laboratory investigations;
- 3) an on-going awareness programme should be in place to encourage reporting of all cases suggestive of CSF;
- 4) the *Veterinary Administration* should have current knowledge of, and authority over, all *establishments* containing pigs in the whole country;
- 5) [domestic pigs should be properly identified when leaving their *establishment* of origin with an indelible mark giving the identification number of their herd of origin; a reliable tracing back procedure should be in place for all pigs leaving their *establishment* of origin;
- 6) the *Veterinary Administration* should have current knowledge about the population and habitat of wild pigs in the whole country.

### Article 2.1.13.3.

For the purposes of this *Code*:

'CSF infected establishment' means a domestic pig holding in which the presence of the infection has been confirmed by field and/or laboratory investigations.

## Appendix XI (contd)

**'Country or zone with CSF infection in domestic pigs'** means a country or zone containing a CSF infected *establishment*.

The size and limits of a CSF domestic pig control area must be based on the control measures used and the presence of natural and administrative boundaries, as well as an assessment of the risks for disease spread.

### Article 2.1.13.4.

#### **Country or zone free of CSF in domestic and wild pigs**

##### **1. Historically free status**

A country or zone may be considered free from the disease in domestic and wild pigs after conducting a risk [analysis] assessment as referred to in Article 2.1.13.2. but without formally applying a specific surveillance programme (historical freedom) if the country or zone complies with the provisions of Article 3.8.0.3. (under study).

##### **2. Free status as a result of an eradication programme**

A country or zone which does not meet the conditions of point 1) above may be considered free from CSF in domestic and wild pigs after conducting a risk [analysis] assessment as referred to in Article 2.1.13.2. and when:

- a) it is a notifiable disease;
- b) domestic pigs should be properly identified when leaving their *establishment of origin* with an indelible mark giving the identification number of their herd of origin; a reliable tracing back procedure should be in place for all pigs leaving their *establishment of origin*;
- c) the feeding of swill is forbidden, unless the swill has been treated to inactivate any CSF virus that may be present, in conformity with one of the procedures referred to in Article 3.6.4.1;
- d) animal health regulations to control the movement of *commodities* listed in Article 2.1.13.8. in order to minimise the risk of introduction of the infection into the *establishments* of the country or zone have been in place for at least 2 years;
- e) where a *stamping-out policy* without vaccination has been practised for CSF control, no *outbreak* has been observed in domestic pigs for at least 6 months; or
- f) where a *stamping-out policy* combined with vaccination has been practised, vaccination against CSF should have been banned for all domestic pigs in the country or zone for at least 1 year; if vaccination has occurred in the last 5 years, a serological monitoring system should have been in place for at least 6 months to demonstrate absence of infection within the population of domestic pigs 6 months to 1 year old, and no *outbreak* has been observed in domestic pigs for at least 12 months; or

- g) where a vaccination strategy has been adopted without a *stamping-out policy*, vaccination against CSF should have been banned for all domestic pigs in the country or zone for at least 1 year; if vaccination has occurred in the last 5 years, a serological monitoring system should have been in place for at least 6 months to demonstrate absence of infection within the population of domestic pigs 6 months to 1 year old, and no *outbreak* has been observed in domestic pigs for at least 12 months;

AND

- h) CSF infection is not known to occur in the wild pig population.

Article 2.1.13.5.

**Country or zone free of CSF in domestic pigs but with infection in the wild pig population**

Requirements in point 2) of Article 2.1.13.4., as relevant, are complied with, but CSF infection is known to occur in wild pigs. Additional conditions for the free status are that in the country or zone:

- 1) a programme for the management of CSF in wild pigs is in place, and CSF wild pig control areas are delineated around every CSF case reported in wild pigs, taking into account the measures in place to manage the disease in the wild pig population, the presence of natural boundaries, the ecology of the wild pig population, and an assessment of the risk of disease spread;
- 2) biosecurity measures are applied to prevent transmission from wild pigs to domestic pigs;
- 3) clinical and laboratory monitoring (under study) is carried out in the domestic pig population, with negative results.

Article 2.1.13.6.

**Recovery of free status**

Should a CSF *outbreak* occur in an *establishment* of a free country or zone (free in domestic and wild pigs, or free in domestic pigs only), the status of the country or zone may be restored at least 30 days after completion of a *stamping-out policy* which should include the following measures:

- 1) a CSF domestic pig control area (including an inner protection area of at least 3 kilometres radius and an outer surveillance area of at least 10 kilometres radius) should be delineated around the *outbreak*, taking into account the control measures applied, the presence of natural and administrative boundaries, and an assessment of the risk of disease spread;
- 2) all the pigs have been killed and their carcasses destroyed, and *disinfection* has been applied within the *establishment*;
- 3) in the protection area around a CSF *outbreak*:

- a) a risk assessment should be carried out to determine the likelihood of CSF infection in neighbouring *establishments*; when a significant risk is indicated, *stamping-out* of all domestic pigs within a radius of at least 0.5 km may be applied;
- b) an immediate clinical examination of all pigs in all pig *establishments* situated within the protection area has been carried out;

## Appendix XI (contd)

- 4) in the surveillance area around a CSF *outbreak*, all sick pigs should be subjected to laboratory tests for CSF;
- 5) an epidemiological examination including clinical examination, and/or serological and/or virological testing has been carried out in all pig *establishments* that have been directly or indirectly in contact with the infected *establishment* and in all pig *establishments* located within the CSF domestic pig control area, demonstrating that these *establishments* are not infected;
- 6) measures aimed at preventing any virus spread by live pigs, pig semen and pig embryos, contaminated material, *vehides*, etc. have been implemented.

If emergency vaccination has been practised within the CSF domestic pig control area, recovery of the free status can not occur before all the vaccinated pigs have been slaughtered, unless there are validated means of distinguishing between vaccinated and infected pigs.

### Article 2.1.13.7.

#### **Country or zone free of CSF in wild pigs**

A country or zone may be considered free from CSF in wild pigs when:

- 1) the domestic pig population in the country or zone is free from CSF infection;
- 2) a monitoring system (under study) has been in place to determine the CSF status of the wild pig population in the country, and in the country or zone:
  - a) there has been no clinical, nor virological evidence of CSF in wild pigs during the last 12 months;
  - b) no seropositive wild pigs have been detected in the age class 6-12 months during the last 12 months;
- 3) there has been no vaccination in wild pigs for at least 12 months;
- 4) the feeding of swill to wild pigs is forbidden, unless the swill has been treated to inactivate any CSF virus that may be present;
- 5) imported wild pigs comply with the relevant requirements set forth in the present chapter.

A zoning approach can only be adopted if there is a wild pig population that is isolated from other wild pigs.

### Article 2.1.13.8.

**Veterinary Administrations** should examine whether they run a risk of introducing CSF by accepting the importation or transit through their territory, directly or indirectly from other countries or zones, of the following *commodities*

- 1) live pigs;
- 2) semen of pigs;

**3) embryos/ova of pigs;**

**4) *fresh meat* of pigs;**

- 5) *meat products* of pigs;
- 6) *products of animal origin* (from pigs) *intended for use in animal feeding or for agricultural or industrial use*;
- 7) *products of animal origin* (from pigs) *intended for pharmaceutical or surgical use*;
- 8) *pathological material* and biological products (see Chapter 1.4.6. and Section 1.5.);
- 9) trophies derived from wild pigs.

Article 2.1.13.9.

When importing from countries or zones free of CSF in domestic and wild pigs, *Veterinary Administrations* should require:

for domestic pigs

the presentation of an *international veterinary certificate* attesting that the animals:

- 1) showed no clinical sign of CSF on the day of shipment;
- 2) were kept in a country or zone free of CSF in domestic and wild pigs since birth or for at least the past 3 months;
- 3) have not been vaccinated against CSF, nor are they the progeny of vaccinated sows.

Article 2.1.13.10.

When importing from countries or zones free of CSF in domestic pigs but with infection in wild pigs, *Veterinary Administrations* should require:

for domestic pigs

the presentation of an *international veterinary certificate* attesting that the animals:

- 1) were kept in a country or zone free of CSF in domestic pigs since birth or for at least the past 3 months;
- 2) have not been vaccinated against CSF, nor are they the progeny of vaccinated sows;
- 3) come from an *establishment* which is not located in a CSF wild pig control area as defined in Article 2.1.13.5., and has been regularly monitored to verify absence of CSF;
- 4) have had no contact with pigs introduced into the *establishment* during the past 40 days;
- 5) showed no clinical sign of CSF on the day of shipment.

Appendix XI (contd)

Article 2.1.13.11.

**When importing from countries or zones with CSF infection in domestic pigs, *Veterinary Administrations* should require:**

**for domestic pigs**

**the presentation of an *international veterinary certificate* attesting that the animals:**

- 1) have not been vaccinated against CSF (in the case of piglets, the mother sows have not been vaccinated against CSF);**
- 2) were kept since birth, or for the past 3 months, in an *establishment* not situated in a CSF domestic or wild pig control area as defined in Articles 2.1.13.5. and 2.1.13.6.;**
- 3) were isolated in a *quarantine station* for at least 40 days;**
- 4) were subjected during that period of quarantine to a virological test, and a serological test performed at least 21 days after entry into the *quarantine station*, with negative results;**
- 5) showed no clinical sign of CSF on the day of shipment.**

Article 2.1.13.12.

**When importing from countries or zones free of CSF in domestic and wild pigs, *Veterinary Administrations* should require:**

**for wild pigs**

**the presentation of an *international veterinary certificate* attesting that the animals:**

- 1) showed no clinical sign of CSF on the day of shipment;**
- 2) have been captured in a country or zone free from CSF in domestic and wild pigs;**
- 3) have not been vaccinated against the disease;**

**and, if the zone where the animal has been captured is adjacent to a zone with infection in wild pigs:**

- 4) were kept in a *quarantine station* for 40 days prior to shipment, and were subjected to a virological test, and a serological test performed at least 21 days after entry into the *quarantine station*, with negative results.**

Article 2.1.13.13.

**When importing from countries or zones free of CSF in domestic and wild pigs, *Veterinary Administrations* should require:**

**for semen of domestic pigs**

**the presentation of an *international veterinary certificate* attesting that:**



- 1) the donor animals:
  - a) were kept in a country or zone free of CSF in domestic and wild pigs since birth or for at least the past 3 months;
  - b) showed no clinical sign of CSF on the day of collection of the semen;
- 2) the semen was collected, processed and stored in conformity with the provisions of Appendix 3.2.3.

Article 2.1.13.14.

When importing from countries or zones free of CSF in domestic pigs but with infection in wild pigs, *Veterinary Administrations* should require:

for semen of domestic pigs

the presentation of an *international veterinary certificate* attesting that:

- 1) the donor animals:
  - a) have been kept in an *artificial insemination centre* which is not located in a CSF wild pig control area and is regularly monitored to verify absence of CSF;
  - b) were isolated in the *artificial insemination centre* for at least 40 days prior to collection;
  - c) showed no clinical sign of CSF on the day of collection of the semen and for the following 40 days;
- 2) the semen was collected, processed and stored in conformity with the provisions of Appendix 3.2.3.

Article 2.1.13.15.

When importing from countries or zones considered infected with CSF in domestic pigs, *Veterinary Administrations* should require:

for semen of domestic pigs

the presentation of an *international veterinary certificate* attesting that:

- 1) the donor animals:
  - a) showed no clinical sign of CSF on the day of collection of the semen and for the following 3 months;
  - b) have not been vaccinated against CSF, and were subjected to a serological test performed at least [10] 21 days after collection, with negative results;

- 2) the semen was collected, processed and stored in conformity with the provisions of Appendix 3.2.3.**

Appendix XI (contd)

Article 2.1.13.16.

**When importing from countries or zones free of CSF in domestic and wild pigs, *Veterinary Administrations* should require:**

**for *in vivo* derived embryos of pigs**

**the presentation of an *international veterinary certificate* attesting that:**

- 1) the donor females showed no clinical sign of CSF on the day of collection of the embryos;**
- 2) the embryos were collected, processed and stored in conformity with the provisions of Appendix 3.3.4.**

Article 2.1.13.17.

**When importing from countries or zones free of CSF in domestic pigs but with infection in wild pigs, *Veterinary Administrations* should require:**

**for *in vivo* derived embryos of pigs**

**the presentation of an *international veterinary certificate* attesting that:**

- 1) the donor females:**
  - a) were kept for at least 40 days prior to collection in an *establishment* which is not located in a CSF wild pig control area and is regularly monitored to verify absence of CSF;**
  - b) showed no clinical sign of CSF on the day of collection of the embryos;**
- 2) the embryos were collected, processed and stored in conformity with the provisions of Appendix 3.3.4.**

Article 2.1.13.17.bis

**When importing from countries considered infected with CSF in domestic pigs, *Veterinary Administrations* should require:**

**for *in vivo* derived embryos of pigs**

**the presentation of an *international veterinary certificate* attesting that:**

- 1) the donor females:**
  - a) were kept for at least 40 days prior to collection in an *establishment* which is not located in a CSF wild pig control area and is regularly monitored to verify absence of CSF;**
  - b) showed no clinical sign of CSF on the day of collection of the embryos and for the following 21 days;**
  - c) have not been vaccinated against CSF and were subjected, with negative results, to a serological test performed at least 21 days after collection;**

2) the embryos were collected, processed and stored in conformity with the provisions of Appendix 3.3.4.

Article 2.1.13.18.

**When importing from countries or zones free of CSF in domestic and wild pigs, *Veterinary Administrations* should require:**

**for fresh meat of domestic pigs**

**the presentation of an *international veterinary certificate* attesting that the entire consignment of meat comes from animals which:**

- 1) have been kept in a country or zone free of CSF in domestic and wild pigs since birth or for at least the past 3 months;**
- 2) have been slaughtered in an *approved abattoir*, have been subjected to ante-mortem and post-mortem inspections and have been found free of any sign suggestive of CSF.**

Article 2.1.13.19.

**When importing from countries or zones free of CSF in domestic pigs but with infection in wild pigs, *Veterinary Administrations* should require:**

**for fresh meat of domestic pigs**

**the presentation of an *international veterinary certificate* attesting that the entire consignment of meat comes from animals which:**

- 1) were kept in a country or zone free of CSF in domestic pigs since birth or for at least the past 3 months;**
- 2) were kept in an *establishment* which was not located in a CSF wild pig control area and had been regularly monitored to verify absence of CSF;**
- 3) have been slaughtered in an *approved abattoir* not located in a CSF control area, have been subjected to ante-mortem and post-mortem inspections and have been found free of any sign suggestive of CSF.**

Article 2.1.13.20.

**When importing from countries or zones free of CSF in domestic and wild pigs, *Veterinary Administrations* should require:**

**for fresh meat of wild pigs**

**the presentation of an *international veterinary certificate* attesting that:**

- 1) the entire consignment of meat comes from animals which:**
  - a) have been killed in a country or zone free of CSF in domestic and wild pigs;**
  - b) have been subjected to post-mortem inspection in an approved examination centre, and have been found free of any sign suggestive of CSF;**

**and, if the zone where the animal has been killed is adjacent to a zone with infection in wild pigs:**

- 2) a sample has been collected from every animal shot, and has been subjected to a virological test and a serological test for CSF, with negative results.**

Appendix XI (contd)

Article 2.1.13.21.

***Veterinary Administrations of importing countries should require:***

**for meat products of pigs (either domestic or wild), or for products of animal origin (from fresh meat of pigs) intended for use in animal feeding, for agricultural or industrial use, or for pharmaceutical or surgical use, or for trophies derived from wild pigs**

the presentation of an *international veterinary certificate* attesting that the products:

- 1) have been prepared:
  - a) exclusively from *fresh meat* meeting the conditions laid down in Articles 2.1.13.18., 2.1.13.19. or 2.1.13.20., as relevant;
  - b) in a processing establishment:
    - i) approved by the *Veterinary Administration* for export purposes;
    - ii) regularly inspected by the *Veterinary Authority*;
    - iii) not situated in a CSF control area;
    - iv) processing only meat meeting the conditions laid down in Articles 2.1.13.18., 2.1.13.19. or 2.1.13.20., as relevant;

**OR**

- 2) have been processed in an establishment approved by the *Veterinary Administration* for export purposes and regularly inspected by the *Veterinary Authority* so as to ensure inactivation of the CSF virus in conformity with one of the procedures referred to in Article 3.6.4.2.

Article 2.1.13.22.

***Veterinary Administrations of importing countries should require:***

**for products of animal origin (from pigs, but not derived from fresh meat) intended for use in animal feeding and for agricultural or industrial use**

the presentation of an *international veterinary certificate* attesting that the products:

- 1) have been prepared:
  - a) exclusively from products meeting the conditions laid down for *fresh meat* in Articles 2.1.13.18., 2.1.13.19. or 2.1.13.20., as relevant;
  - b) in a processing establishment:
    - i) approved by the *Veterinary Administration* for export purposes;
    - ii) regularly inspected by the *Veterinary Authority*;
    - iii) not situated in a CSF control area;
    - iv) processing only products meeting the conditions laid down in point a) above;

**OR**

- 2) **have been processed in an establishment approved by the *Veterinary Administration* for export purposes and regularly inspected by the *Veterinary Authority* so as to ensure inactivation of the CSF virus.**



Article 2.1.13.23.

***Veterinary Administrations of importing countries*** should require:

**for bristles (from pigs)**

the presentation of an *international veterinary certificate* attesting that the products:

- 1) come from a country or zone free of CSF in domestic and wild pigs; or
- 2) have been processed in an establishment approved by the *Veterinary Administration* for export purposes and regularly inspected by the *Veterinary Authority* so as to ensure inactivation of the CSF virus.

Article 2.1.13.24.

***Veterinary Administrations of importing countries*** should require:

**for litter and manure (from pigs)**

the presentation of an *international veterinary certificate* attesting that the products:

- 1) come from a country or zone free of CSF in domestic and wild pigs; or
  - 2) come from *establishments* situated in a country or zone free of CSF in domestic pigs but with infection in wild pigs, but not located in a CSF control area; or
  - 3) have been processed in an establishment approved by the *Veterinary Administration* for export purposes and regularly inspected by the *Veterinary Authority* so as to ensure inactivation of the CSF virus.
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APPENDIX 3.6.4.

CLASSICAL SWINE FEVER VIRUS  
INACTIVATION PROCEDURES

Article 3.6.4.1.

Swill

(under study)

Article 3.6.4.2.

Meat

For the inactivation of viruses present in meat, one of the following procedures should be used:

1. Heat treatment

Meat shall be subjected to one of the following treatments:

- a) heat treatment in a hermetically sealed container with a Fo value of 3.00 or more;
- b) heat treatment at a minimum temperature of 70°C, which must be reached throughout the meat;
- c) heat treatment in a hermetically sealed container at a temperature of at least 60°C for a minimum of 4 hours, during which the core temperature must reach at least 70°C for 30 minutes.

2. Natural fermentation and maturation

The meat should be subjected to a treatment consisting in natural fermentation and maturation of not less than 9 months and having the following characteristics:

- a) aw value of not more than 0.93, or
- b) a pH value of not more than 6.0.

Hams should be subjected to a natural fermentation and maturation process for at least 190 days and loins for 140 days.

[NOTE: Other pig meat processing, such as salami processing, may be effective for the inactivation of classical swine virus. However, given the variability of the processing protocols, the effectiveness of each specific processing must be demonstrated.]

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